



# Curb Extensions

## Increasing roadway safety and user comfort

Curb extensions—also called bulb outs or bump outs—extend a small section of sidewalk into the roadway at intersections or at midblock crossings.

Curb extensions increase road safety and pedestrian comfort by shortening the distance pedestrians have to cross and increasing visibility between drivers and people walking.

By visually narrowing the roadway, curb extensions encourage drivers to slow down when approaching the intersection. They also create tighter corner radii, which slow down turning motorists.

Curb extensions provide additional space to install directional curb ramps. They also provide space for amenities like plantings, bike racks, or public art, and they improve sight lines for all users by keeping parked vehicles away from the intersection.

- 1 PEDESTRIAN SAFETY**  
Pedestrians are in the path of traffic for less time when crossing.
- 2 VISIBILITY**  
Parked vehicles are farther away from the intersection, and both the crosswalk and pedestrians are more noticeable to drivers.
- 3 SLOWER VEHICLES**  
Curb extensions make the road look narrower and tighten turns.
- 4 SPACE FOR ADA CURB RAMPS**  
Additional space allows for better ADA curb ramps to be installed.

**Curb extensions have been shown to improve driver yielding, slow vehicles, and reduce conflicts.**<sup>1,2,3</sup>

- 1 Kang, B. (2019). Identifying street design elements associated with vehicle-to-pedestrian collision reduction at intersections in New York City. *Accident Analysis & Prevention*, 122, 308–317.
- 2 Zegeer, C., Srinivasan, R., et al. Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. NCHRP Report 841. The National Academies Press, 2017. DOI: 10.110.17226/24627
- 3 Sanders, R.L., Judelman, B., and Schooley, S. Pedestrian Safety Relative to Traffic-Speed Management. NCHRP Synthesis 535. The National Academies Press, 2019. DOI: 10.17226/25618

# Curb Extension Opportunities

Curb extensions provide space for valuable community features and streetscape enhancements such as:

- Full, directional ADA-compliant curb ramps and crosswalks
- Green stormwater swales or planters
- Seating
- Bus stops (“bus bulbs”)
- Bike racks, bike share stations, scooter parking
- Wayfinding information
- Lighting and utilities
- Public art



Bus bulb



Landscaping



Stormwater swale



Street furnishings

## Where To Use Them

Curb extensions can make crossings safer and more comfortable everywhere from a mid-block crosswalk to a large signalized intersection.

- Curb extensions are typically built in all-day parking lanes or wide shoulders.
- Curb extensions are particularly effective at signaling the transition from Rural to Rural Crossroads land uses and slowing drivers as they enter areas with pedestrian activity.
- Curb extensions work well in combination with crossing islands and crossing beacons for pedestrians.

Recommended around:



**Schools**



**Business districts**



**Parks**



**Trail crossings**



**Retirement living**

### DESIGN RESOURCES

*MnDOT Traffic Engineering Manual, Chapter 13:  
Non-Motorized Facilities*

*MnDOT Report 2013-22: Minnesota’s Best Practices  
for Pedestrian/Bicycle Safety*

*FHWA-HEP-16-005: Achieving Multimodal Networks:  
Applying Design Flexibility and Reducing Conflicts*

*NCHRP Report 926: Guidance to Improve Pedestrian  
and Bicycle Safety at Intersections*

### RELATED INFOSHEETS

*Where To Expect People Walking*

*Median Crossing Islands*

*Enhanced Crossings*